ORIGINAL

Before The
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
The Development of Operational,	)	
Technical and Spectrum Requirements	)	
Fr Meeting Federal, State and Local	)	
Public Safety Communication Requirements	)	WT Docket No. 96-86
Through the Year 2010; Establishment of	)	
Rules and Requirements for Priority	)	
Access Service	)	
	)	
Fourth Notice of Proposed Rulemaking	)	

TO: The Commission

COMMENTS OF DATARADIO CORPORATION

DATARADIO CORPORATION ("Dataradio"), by its attorneys, and pursuant to the Commission's Public Notice in this proceeding released August 2, 2000, 65 Fed. Reg. 51788 (August 25, 2000), respectfully submits these Comments.

Dataradio is a leading manufacturer of radios dedicated exclusively to data communications and is a provider of data-only equipment to the public safety sector. Dataradio has participated in the meetings of the NCC with the view to assisting the development of interoperability standards for data radios.

Dataradio applauds the Commission's recognition of the separation between voice and data uses of radios and its proposal that subscriber units designed for data-only applications not be required to have voice capability. Dataradio also agrees with the Commission's proposal to reserve two data interoperability channels.

Dataradio does not agree with the NCC's adoption of the P-25 standard for narrowband data communications on the interoperability channels as it is obsolete and

will not be efficient or functional for developing data applications. Also, the P-25 standard is merely an air interface standard and does not address the applications to be used by public safety entities or the pathways for sharing information. There can be no interoperability for data communications unless all entities are running the same applications and utilizing the same access protocols. In fact, unless applications standards are developed, miscommunications will inevitably result during emergencies, endangering public safety personnel and the general public.

The Commission should direct the NCC specifically to address these issues as part of its task, and in the meantime should delay adopting an air interface protocol for data communications. Adoption of the obsolete P-25 standard at this time on the basis that it is the only standard currently available will stunt development of future applications. It is unnecessary to push through an inadequate and incomplete data standard when finalization of rules and implementation of the band is still years away.[1]

1. The P-25 Data Standard is Obsolete

Although the P-25 standard has been available for more than seven years, it is not widely utilized in public safety data communications systems other than in very limited circumstances. Thus, the NCC's recommendation would force data communications into a pathway that has not been adopted by the market and would not otherwise be adopted. In this regard, the recommendation is anticompetitive and not reasonable.

A major problem with the P-25 data suite, which is patterned on the P-25 voice standard, is that like the voice standard it is also a trunking standard. Trunking systems

[1] Dataradio already has addressed these issues in a Minority Report dated March 13, 2000 and submitted to the NCC and the Commission, and in ex parte presentations to the Commission. Copies of relevant documents are attached hereto and are hereby incorporated as part of these comments.

do not work efficiently with data communications, as there is too much time delay resulting from the channel identification protocol.

The P-25 standard also is obsolescent for data communications because it uses only a 9600 baud rate, which is too slow for many state-of-the-art applications. A data system is useful only to the extent that there are applications that will run on it. It is unlikely that applications will be written to run on the slow, inefficient P-25 standard. [2]

In previously declining to adopt the P-25 standard, the FCC expressed concern over adopting a standard that would "'lock in' the technology of today at the expense of precluding emerging technologies." WT Docket No. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking,* 14 FCC Rcd 152 at par. 111. However, adopting P-25 data technology now would effectively lock in the technology of *yesterday*. This same standard that was obsolescent four years ago is certainly no less obsolescent today, and the FCC should not now change its decision.

2. The NCC's Data Recommendation is Incomplete and Potentially Dangerous

True interoperability with data communications is much more a function of the information to be shared than it is a function of the air interface. Defining an interoperable air interface for data communications is useless unless all users are running the same applications, and utilizing the same data access protocols. This is akin to voice communications, where it is necessary for all users to speak and understand a common language. With voice communications, it is not necessary for the NCC to define what language will be used to facilitate interoperable communications, it goes without saying that the language will be English. But for data communications, it is necessary, since

[2] Indeed, writing new data applications for the P-25 standard is the equivalent of writing new applications for a 286 computer or developing television programming solely for black and white television sets.

there are different applications, different formats and different access protocols proprietary to each manufacturer's systems (and/or each software developer's products), and there is no national accepted standard.

The Commission has defined interoperability to mean, "an essential communications link ... which permits units from two or more different entities to interact with one another and to exchange information according to a prescribed method in order to achieve predictable results." WT Docket No. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking.* 14 FCC Rcd 152, at par. 76 (1998). The NCC's recommendation of a P-25 standard for data falls short of this definition. ***Because applications have not been addressed, software obtained by Public safety users from different sources will likely not be compatible.*** Applications and associated standards must be specifically addressed and agreed upon by consensus in an appropriate ANSI-accredited forum. The P-25 air interface will only allow interaction between units from different entities if those entities happen to be running the same application, formats, and access protocols. Since this has not been defined, and since applications, formats and access protocols generally are proprietary, this will only happen if the two entities have equipment from the same manufacturer and/or software from the same source. The NCC's recommendation thus is anticompetitive, favoring the larger equipment manufacturers and software developers.

The FCC has specifically recognized that any appropriate data standard must be "applications driven." This is acknowledged by the FCC in regards to wideband data communications. The FCC declined to require wideband interoperability because "different and unrelated applications could be used on different channels." WT Docket

NO. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking*, 14 FCC Rcd 152, at par. 135 (1998). Also see comments of Tim Goodall, Motorola, January 13, 2000 NCC meeting, minutes, pgs 2-26. The same concern applies to narrowband data communications, as recognized during meetings of the NCC. See remarks of Robert Schlieman, meeting of NCC Subcommittee on Technology, January 27, 2000, Minutes, pg. 5 ("Clearly, there is more required than just these four standards," and "Trying to come up with data standards in less than two weeks is a bit of an unrealistic task"); Remarks of Robert Schlieman, APCO representative and member of the NCC's Interoperability Subcommittee, meeting minutes, pgs. 54-58 (April 6, 2000).

The recommended P-25 standard, if adopted as a final rule, will result in confusion and potential harm to public safety personnel and the public during emergencies. Radios incorporating the standard would be sold as "interoperable" even though they would not be interoperable under the FCC's definition or in the practical sense. Although all radios would be mandated by government regulation to contain the same obsolete "pipeline," preventing state-of-the-art data applications, applications used by different public safety users would inevitably be incompatible and non-functional.

Thus, public safety personnel from different entities might well learn for the first time during a crisis situation that their radios really are not interoperable because their respective data systems are running different applications, formats and access protocols. This is the equivalent of a voice call to 911 where the caller speaks only English and the emergency operator speaks only Chinese. This would be dangerous in a situation where

personnel seek to rely during an emergency on interoperable capability that does not actually exist. [3]

The FCC should direct the NCC to complete the task of defining an interoperability standard for narrowband data communications before allowing equipment to be marketed as "interoperable" that in reality only has an interoperable air interface and does not meet either the FCC's definition or the practical requirements of interoperability. In the meantime, the FCC should leave open the issue of the air interface standard to allow the possibility of other, more advanced, efficient and useful standards to be developed and considered.

3. The NCC Did Not Adequately Consider the P-25 Standard

The P-25 standard for data was proposed and adopted by the NCC at a single meeting without adequate discussion and consideration. There was no public notice that the standard would be on the agenda for the meeting, contrary to the requirements of the Federal Advisory Committee Act (FACA). Because of the TIA copyrights, the standard documents themselves were not made publicly available to participants before the meeting, or even during the meeting in many instances. The P-25 standard was pushed through and adopted because it was the *only* ANSI-approved standard. There was limited public discussion and therefore any "consensus" was not based on considered deliberation but was the result of a predetermined decision made behind the scenes. These issues are discussed extensively in Dataradio's prior submissions, including its

[3] Should the FCC adopt P-25 as an air interface without adopting accompanying standards for associated applications, it should require that all data capable radios contain the following warning label to protect the public: WARNING -- USE OF THE INTEROPERABILITY DATA CHANNELS DURING EMERGENCIES CANNOT BE RELIED UPON. DUE TO LACK OF STANDARDS, CERTAIN APPLICATIONS WILL NOT BE COMPATIBLE WITH OTHER PUBLIC SAFETY OPERATORS."

Minority Report. See attachment hereto. The Minority Report itself was never appropriately presented to the FCC by the NCC.

In essence, the P-25 data suite was run through the NCC by its sponsors without opportunity for public debate and discussion, and on the basis that it was the "only game in town." As one of the sponsors observed during the meeting when the standard was both introduced for the first time and adopted, "I am certain that a lot of the people here, particularly for the first time, are totally bewildered by now hearing all this alphabet soup, not knowing what we are talking about." Remarks of Art McDole, APCO , meeting of NCC Subcommittee on Technology, San Francisco, California, January 27, 2000, meeting minutes, pg 20.[4]

Adoption of the P-25 standard by the NCC thus was not carried out in a fair and open process as required by the Federal Advisory Committee Act (FACA). Accordingly, there is no lawful basis for the FCC to propose P-25 on the current record. *Alabama-Tombigbee Rivers Coalition v. Department of Interior*, 26 F.3d 1103 (1994) ("The court sees no reason to retreat from its conclusion that FACA was designed by Congress to prevent the use of any advisory committee as part of the process of making important federal agency decision unless that committee is properly constituted and produces its report in compliance with the procedural requirements of FACA, particularly where, as in this case, the procedural shortcomings are significant and the report potentially influential to the outcome.") Here, the P-25 standard is being proposed solely because the NCC

[4] The closed nature of the NCC process whereby the proposal was developed is further highlighted by the NCC's treatment of Dataradio's Petition For Waiver of Section 90.547 of the rules. Public Notice DA00-230, released February 9, 2000. In its waiver request, Dataradio asks the Commission to allow the manufacturing and marketing of data-only radios for the general-use channels only until workable and functional standards can be developed for the interoperability channels. The NCC submitted comments opposing the waiver petition based on behind-the-scenes discussions and personal opinion of the NCC Chair.

recommended it, and in spite of the FCC's prior rejection of the standard.

CONCLUSION

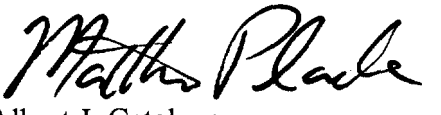
The FCC should require the NCC to devise a complete interoperability standard for both narrow and wide band data communications before moving to adopt any air interface standard for narrowband data. The proposed P-25 air interface standard is incomplete, inefficient and obsolete. Moreover, it is not necessary to adopt any air interface standard until the applications, format and access layers are complete, as the air interface serves no purpose until these other issues are resolved. In addition, there should be tandem development of narrow and wide band standards to facilitate equipment correlation and cost efficiencies between the two. This is especially true in light of the Commission's prior and well-reasoned rejection of this very standard.

Finally, Dataradio reiterates the need for the FCC to grant its Emergency Petition for Waiver to facilitate deployment of equipment for use on the general use channels pending completion of development of interoperability standards.

Respectfully submitted,

DATARADIO CORPORATION

By Its Attorneys,



Albert J. Catalano
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DATED: September 25, 2000

ATTACHMENT TO
COMMENTS OF DATARADIO CORPORATION
WT DOCKET NO. 96-86
(September 25, 2000)

CATALANO & PLACHE, PLLC

3221 M Street, N.W.
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Telephone (202) 338-3200
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May 31, 2000

By Hand Delivery

Magalie Roman Salas, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Ex parte Presentation by Dataradio Corporation, WTB-2

Dear Ms. Salas:

This letter provides notice of an oral ex parte presentation made on behalf of DATARADIO Corporation today to Ms. Kathleen O'Brien Ham, Mr. Mark Rubin, Ms. Jeanne Kowalski, and Mr. Michael Wilhelm of the Wireless Telecommunications Bureau with regard to the above docket. The presentation was made by Steve Beeferman, DATARADIO Corporation, and Albert Catalano and Matthew Plache of Catalano & Plache, PLLC. Enclosed is a summary of the presentation. We provide two copies of this letter.

Very truly yours,

Albert J. Catalano
Matthew J. Plache

Enclosures
Cc: Kathleen O'Brien Ham
Mark Rubin
Jeanne Kowalski
Michael Wilhelm, WTB-2

SUMMARY OF EX PARTE PRESENTATION
BY DATARADIO CORPORATION (MAY 31, 2000)

COMMENTS ON THE NCC'S RECOMMENDATION OF APCO 25 AS AN INTEROPERABILITY STANDARD FOR NARROWBAND DATA

Introduction

1. DATARADIO CORPORATION is a leading manufacturer of radio systems dedicated exclusively to data communications, and is a major provider of data-only equipment to the public safety sector. As such, DATARADIO has extensive knowledge and experience regarding narrowband data systems and how they are utilized by public safety entities.

2. DATARADIO does not support the NCC's recommendation for narrowband data interoperability. The recommended standard is incomplete, inefficient for data, and obsolescent. Ultimately, the recommendation, if adopted, would not be useful and could stunt the development of data communications, which to a large extent is still in its infancy. On the other hand, there is no immediate need to adopt an interoperability standard as the spectrum will not be cleared for many years. The Commission should wait in adopting a standard until more work is done on identifying common applications and data base protocols. This will allow for development of a useful, flexible, forward looking standard that will facilitate the full development of data communications as a tool for public safety.

3. Public safety entities typically maintain separate dedicated systems for both data and voice communications. One reason for this is that data communications systems, like personal computers, have been evolving rapidly and are expected to continue to evolve rapidly – since 1996, for example, when the Public Safety Wireless Advisory Committee (PSWAC) submitted its report, WT 96-86, highlighting the immediate need for additional public safety spectrum, DATARADIO has introduced three successive generations of data communications equipment. Voice communications systems are not evolving at the same rapid pace.

4. Because of the bifurcation between voice and data systems, it is not necessary to establish the same interoperability standard for both voice and data communications. The FCC's rejection or adoption of the NCC's recommendation for either type of communications does not dictate the same result for the other type. Indeed, adoption of the same or similar standard for both data and voice could hamper data communications development and usefulness.

5. Whatever standard is adopted for data communications must be both forward looking and flexible so as not to slow down continued technical evolution and competition in the field.

6. The NCC's recommendation of the APCO 25 data suite standards for interoperability of data communications has many problems and should not be adopted by the FCC. These problems are outlined below. Some of these problems were detailed in DATARADIO's Minority Report on Interoperable Data. Attachment 1 hereto.

7. Neither the NCC nor PSWAC before it has focused in more than a cursory manner on data communications. For example, the uses, the desired applications, the data base structures and the access protocols have not been considered.

APCO 25 Does Not Work Well For Data Communications

8. Although the APCO 25 standard has been available for more than seven years, it is not utilized in data communications systems other than in very limited circumstances. Thus, the NCC's recommendation would force data communications into a pathway that has not been adopted by the market and would not otherwise be adopted. In this regard, the recommendation is anticompetitive and not reasonable. There are several reasons why the APCO 25 standard is not used for data communications, and would not likely be chosen for data communications.

9. The APCO 25 data suite is patterned on the APCO 25 voice standard. Like the voice standard, the data suite also is a trunking standard. Trunking systems do not work efficiently with data communications, as there is too much time delay resulting from the channel identification protocol.

10. The APCO 25 standard is obsolescent for data communications. It utilizes only a 9600 baud rate, which is too slow for many state-of-the-art data applications. DATARADIO's current generation of equipment, for example, operates at a 19.2K baud rate.

11. A data system is useful only to the extent there are applications that will run on it. It is unlikely that future applications will be written to run on the slow, inefficient APCO 25 standard – it would be akin to attempting to run a windows-based operating system on a 286 processor.

The NCC's Data Recommendation is Not Complete

12. The APCO 25 data suite recommended by the NCC *does not define a complete interoperable standard.* APCO 25 defines only the air interface aspects of communications. Much more needs to be resolved to facilitate an interoperability standard.

13. True interoperability with data is much more a function of the information to be shared than of the air interface. Thus, it requires applications and pathways in a common data base; likewise, messaging and other data type functions need to be commonly formatted and standardized to effect interchange. Beyond this, there needs to be a command and control protocol to determine aspects such as access validation, identity verification and other operational components.

14. The NCC's Interoperability Subcommittee recognized during the April 6, 2000 meeting that this further work must be accomplished before data interoperability can be achieved. Remarks of Mr. Robert Schlieman, APCO representative and member of the NCC's Interoperability Subcommittee, meeting minutes, pgs. 54-58 (April 6, 2000) (Attachment 2 hereto).

15. In addition, the Subcommittee recognized that *further rulemaking might be required to facilitate the NCC's completion of the task* of establishing workable data interoperability standards that go beyond the air interface to address the application level, etc. See, id., discussion between Mr. Schlieman and Mr. Michael Wilhelm, FCC Designated Federal Officer: "the current rules pertains to the transmitter portion of it and the application was left out so we need to include that." Minutes, pg. 58.

16. The key sponsors of the Project 25 standard correctly recognize that it does not satisfy the needs of data interoperability, observing, for example, "Clearly, there is more required than just these four standards," and "Trying to come up with data standards in less than two weeks is a bit of an unrealistic task." Remarks of Robert Schlieman, meeting of NCC Subcommittee on Technology, January 27, 2000, Minutes, pg. 5. Attachment 3 hereto.

17. In adopting this recommendation, the NCC recognized that it would still need to do a lot of work to fill in the gaps in the standard; it adopted the standard nonetheless in order that it could recommend *some*thing immediately to the Commission, with the plan of taking its time later to fill in the gaps as needed to make the standard workable. As one APCO representative observed, "So let's move forward as rapidly as we can to satisfy the Commission's need and as slowly as we can to make sure that we get things done right." Remarks of Art McDole, APCO, meeting of NCC Subcommittee on Technology, San Francisco, California, January 27, 2000, Minutes pg. 33. Attachment 3 hereto.

There is No Migration Path

18. *There is no recommended migration path* from the 12.5 kHz APCO 25 standard to a 6.25 kHz standard.

19. The Commission has directed the NCC to recommend a migration pathway to the more efficient standard. For example, Ms. Kathleen O'Brien Ham, addressing the

April 7, 2000 meeting of the NCC, stated, "So the question is not whether 6 ¼ kHz technology is going to be implemented on the interoperability channels, the question is when. The answer to that question currently is in the hands of the NCC and we're looking to the NCC for guidance to ensure that the 6 ¼ kHz technology wil be available and that there will be a graceful transition to this new technology." Minutes of NCC April 7, 2000 meeting, pg. 29. Attachment 4 hereto.

20. Indeed, the NCC's Subcommittee on Technology recognized at its April 6, 2000 meeting that adopting the APCO 25 standard makes migration to a 6.25 kHz standard more difficult. See, remarks of David Eierman, Motorola, meeting minutes, pgs. 69-71 (concluding, "You know, sometime way in the future, you know, some of the IO channels could be set aside as 6.25-onlys and some of them remain 12.5s for some period.") See also, remarks of Mr. Nash, Subcommitee Chair, concluding, "we have a significant sale job that has got to go down, you know, to convince the people in authority here at the FCC that 12.5 on the interoperability channels is the right decision for a long period of time." Meeting minutes, pgs. 71-72 (attachment 5 hereto).

Conclusion

21. Rather than adopting an obsolescent standard that will not be useful for desired applications and ultimately could hamper development of data interoperability, the Commission should instead direct the NCC to address the remaining issues for data interoperability in order to facilitate development of a workable, forward-looking standard.

22. Interoperability cannot be achieved in any case until the spectrum has been cleared, which will take several years at a minimum. In the meantime, there is no immediate need to adopt an interoperability standard. Thus, there is time to develop a standard that makes sense for data.

23. DATARADIO has been working to help the NCC complete its work, and has prepared a minority report on narrowband data communications. As a leader in data communications systems DATARADIO has expertise that can help and DATARADIO intends to continue to be an active participant.

24. Ultimately, software defined radio (SDR) will be the answer to resolving the interoperability issue for data communications. Indeed, it is expected that SDR systems will be available and on the market in two to three years, which is sooner than the NCC's work on data interoperability standards will be completed.

ATTACHMENT 1

draft document that we can improve to send onto TIA. Does that sound good, John?

MR. POWELL: Great. Any further comments at this point on the data, high speed data issue?

MR. SCHLIEMAN: Mike, for clarification purposes, the FCC rules require transmitters to incorporate or have the capability to operate on the NCC designated mode of interoperability or words to that effect. How far back from the common air interface does that go? In other words, does that get us back into the application software requirements or is it limited to feeding a digital signal into a radio and having the radio communicate that to another radio in a standard fashions so that regardless of manufacture the radio will be able to pass information?

MR. WILHELM: The commission hasn't been more specific than to say that the radios must be interoperable. Certainly a reasonable interpretation of that would be that the fitting of the data pipe, if you will, has to be the same. Other than that, the issue hasn't been addressed. It might be a good thing for the subcommittee to address and put in its report.

THE COURT: As, I think I had mentioned in some of the submissions in technology, the standards that were recommended addressed the transmitter need, which was, at least my personal interpretation of the FCC rule. I also

noted that with respect to data there was considerable work that needed to be done to standardize applications. We've been talking about applications this morning so you can understand the scope of this is enormous.

I just want to, in terms of what our required output is, I'd like to understand how far the Commission, in its rules requires us to develop standards. I'm not in any way suggesting that we shouldn't explore these other areas but I'm trying to get clear in my mind the differentiation between the rules that require manufacturers to produce certain types of radio equipment capability and rules that may or may not exist that would pertain to the applications which are put on those radio platforms.

MR. WILHELM: If I understand your question correctly, you would see one interpretation of this rule as requiring all television cameras to have a certain frame rate resolution and be compatible with a common receiver on the other end. Is that the interpretation you are placing on it?

MR. SCHLIEMAN: that would be the extension of it, yes. In other words, the current rule talks about transmitter, doesn't talk about peripherals. It doesn't talk about applications, whether it is video, whether it is fingerprints, whether it is a fax and any of that stuff. It just says the transmitter must have interoperability

capability, the standard that is defined by or designated by NCC and presumably accepted by the FCC, which we are waiting for.

But what you plug into the transmitter could be any unimaginable number of things. In order for interoperability to occur between users their applications have to be the same. The analogy would be, for instance, in voice that we have a common vocoder and the acoustical signal goes into a microphone. We don't specify the type of microphone or anything else but it produces an electrical signal, the electrical signal is converted to a digital signal and the digital signal goes into a Codec which is standardized so that it is treated the same by all radios. That's the IMBE vocoder that was recommended as a part of the common air interface.

So, what goes into the transmitter, in effect, is an electrical signal and any manipulation that's done on that electrical signal before it gets to the transmitter is not part of the FCC's domain for rules as they currently read. Now, that's the analogy to data. We're dealing with all these myriad applications that get plugged into, presumably, an RS-232 port, which gets transmitted as packets, for instance, over the channel using the standards that were set forth to FCC for acceptance.

Do we need to go beyond that in the current rules

as they are written now or if we have to go beyond that will there be further rulemaking that addresses those issues that are not currently addressed in the rules?

MR. WILHELM: I think your question resolves down to the issue of whether it is desirable to regulate the peripherals used with this wide band equipment or --

MR. SCHLIEMAN: Or any band equipment.

MR. WILHELM: Well, we're talking about wide band at the moment. Or are we going to place some point in the system at which interoperability ends? In other words, for example, the RS-232 port, the capability is supporting 384 kilobytes might be the end of the data pipe and right now the rules go no further.

The question of whether they should go further and whether there should be compatible peripherals is something the FCC would like to hear about from this committee.

MR. SCHLIEMAN: That clarifies.

MR. WILHELM: Thank you.

MR. BUCHANAN: Okay.

MR. BEEFERMAN: I would just like to make one point and that is the true definition of interoperability, particularly on the data side, really involves the application and to exclude from that whether it is a regulatory issue or not is ignoring the whole point. I believe that if you provide a radio that supports common air

interface and whatever data standard, for example, and people don't understand that they have to have some standard to communicate with others in the framework of whatever interoperable scenario that you would define then you don't have interoperability and that's what we're all here about.

MR. SCHLIEMAN: I agree.

MR. BEEFERMAN: Thank you.

MR. SCHLIEMAN: That's why I was exploring how we should deal with this, if it should be further rulemaking be requested to deal with applications because, as I believe I understand, the current rules pertains to the transmitter portion of it and the application was left out so we need to include that. I'm not disagreeing with what you are saying.

MR. BUCHANAN: Well, one problem that we're going to have and I've been trying to avoid that application, at least on this part of it, is we don't know all the applications and we'll never know all the applications. If we define one set of applications and say, "This is it, you can't do anything else." the users are going to kill us down the road.

We've got to leave enough flexibility in there that the users can come up with their own standard applications to put on it, their own forms. It may be an effort by the fire services that we say, "Here's your platform. You can put data in right here and you guys

ATTACHMENT 3

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:	)
	)
PUBLIC SAFETY NATIONAL	)
COORDINATION COMMITTEE	)
	)
SUBCOMMITTEE ON	)
TECHNOLOGY	)

Room 250
City Hall
1 D. Coulton B. Goodlet Place
San Francisco, California

Thursday,
January 27, 2000

The Subcommittee met, pursuant to the notice at 1:20 p.m.

APPEARANCES:

GLEN NASH, Chair
MICHAEL WILHELM
ROBERT SCHLIEMAN
DAVE BUCHANAN
KATHLEEN WALLMAN

copyright allows free distribution to governmental entities. For that reason, I have ten copies of the standard which I printed from the last CD ROM that was produced. There is a new one due out this spring.

But I cannot offer this to others than governmental entities. And I hope you appreciate the copyright legalities of that. So if anybody who is a governmental representative would like a copy, I have ten copies here for the first ten that come to the gold rush. Since this is San Francisco, it seemed like an appropriate term. Don Root is going to be first.

MR. ROOT: All right. I'll take a copy.

MR. SCHLIEMAN: I almost didn't have these here for this meeting even though I brought them with me because my luggage got mislocated last night when I arrived. Fortunately, they found it. So I had possession again at 6:00 a.m. this morning.

I don't know, you know, how much more we need to particularly comment on this. It has been through a rather exhaustive data standard development process over -- TIA standard development process. It is designed to work with the ANSI 102 as an integral part of it.

It allows the opportunity for both packet and circuit mode data traffic. And it includes the radio control protocol to allow connection to the RS-232 input

interface of an ANSI 102 radio or a radio which complies with the ANSI 102 standard. It becomes a case then of writing applications to meet with that.

Clearly, there is more required than just these four standards. There is a need to standardize an application layer to properly communicate with data. Obviously, you could send bit stream text and receive that. However, in the discussions that we had this morning, it was clear that there was a need for high accuracy.

And while the transmission of messages will require a high level of accuracy, more so than speech requires and also the formatting of transmissions so that the information that is communicated is useable at the opposite end, that needs some further work done on it.

Trying to come up with recommendations for a data standard in less than two weeks is a bit of an unrealistic task. But since these standards have already been developed for use with the ANSI 102 series equipment, it seems reasonable, if not logical, that these standards should be employed for data communications.

Does anybody have any comments they would like to make? Carlton?

MR. WELLS: This comment applies more to the process --

CHAIRMAN NASH: Name, please.

CHAIRMAN NASH: Again, the BAAA was forwarded specifically for the voice interoperability standard.

MR. SCHLIEMAN: But it also in the recommendation noted that it was capable of data communications.

CHAIRMAN NASH: Noted, but, again, I -- just, you know, for my own procedural reasons, I guess, you know, we made a voice recommendation that recommended that document. And then if we are now going to forward a data recommendation, we should be complete by, again, referencing that document.

MR. SCHLIEMAN: Okay. Art?

MR. McDOLE: Well, I'm sorry that Ms. Wallman left the room for a few moments because what I was going to say -- I was going to comment briefly and paraphrase perhaps what she said in a little different way. I think having worked with this whole process for well over ten years now, the Project 25 and the rest, we have all been torn between the desire and the need to hurry forward and that, the necessity of doing a complete and factual job.

I think that is even more emphasized in this process perhaps than it was in Project 25 because of the time constraints that is placed through the Commission on the group. I think it is imperative that we move as rapidly as possible, but still with caution.

Those of you who know me well know that patience